

Appl. No. 10/677,399  
Filed: 10/01/2003  
Atty Dkt: HM-87423  
Amendment "B" in Response to 12/17/2004  
Office Action

Swiatek, Robert P., Patent Examiner  
Art Unit 3643  
Title: ELECTRIC FISH BARRIER FOR WATER INTAKES  
AT VARYING DEPTHS

### REMARKS

Currently pending are claims 32, 33, 35, 38-41, 45, 46, and 48-50. The examiner reported that claim 32 would be allowable if rewritten as independent, including all of the limitations of the base claim and any intervening claim. As can be seen by the above amendments, this has been done, so that claim 32 and its dependent claim 33 should be in condition for allowance.

The remaining claims are directed to those embodiments of applicant's inventive electronic barrier for use in preventing fish from entering a water intake. The electronic barrier includes a first array of vertically-oriented, adjacent electrode structures positioned in front of the water discharge and a second array of vertically-oriented, adjacent electrode structures, also positioned in front of the water discharge, and spaced apart from the first array. Each electrode structure includes a conductive portion (see, for example, Fig. 7, el. 25A and Fig. 8, el. 87), and a first insulating portion (see, for example, Fig. 7, el. 91 and Fig. 8, el. 82). Together, the conductive and insulating portions selectively form a voltage gradient in front of the water intake. (Page 8, lines 24-26.)

The examiner rejected all the claims as anticipated by or as obvious in light of Applegate *et al.* Reconsideration is respectfully requested. Applegate *et al.* neither teaches nor would it have suggested an electronic fish barrier that includes first and second vertically-oriented electrode arrays located in front of a water intake, where each

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electrode structure includes a conductive portion and a first insulating portion selectively forming a voltage gradient in front of the water intake.

As seen in Fig. 1 of Applegate *et al.*, this patent discloses a stream 10 having an electrode array extending obliquely across *the greater portion* of the span of the stream. (Col. 4, lines 6-8.) To prevent fish from passing through the gap between the end of the electrode array and the stream's bank, the system described in Applegate *et al.* also includes at least one mechanical trap, 52 or 72. The mechanical trap extends from the stream's bank and is substantially aligned with the electrode array. (Col. 5, lines 17-22.) A conducting shield, 56 or 57, is mounted between the trap and the electrode array to isolate the trap from any electrical effects of the apparatus. (Col. 28-31.) Such a conducting shield cannot fairly be characterized as a water intake.

Because Applegate *et al.* does not disclose nor would it have suggested a water intake, it does not disclose nor would it have suggested first and second vertically-oriented electrode arrays located in front of a water intake. Much less does Applegate *et al.* disclose or would it have suggested first and second vertically-oriented electrode arrays located in front of a water intake, where each electrode structure includes a conductive portion and a first insulating portion selectively forming a voltage gradient in front of the water intake, as is a feature of all the pending claims. Therefore, Applegate *et al.* does not anticipate nor would it have made obvious any of claims 35, 38-41, 45, 46, and 48-50.

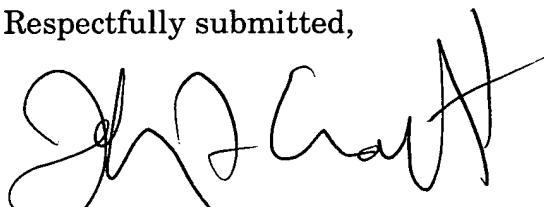
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### CONCLUSION

In light of the foregoing amendment and remarks, it is believed that the application is in condition for allowance, so that a prompt and favorable response is earnestly solicited.

Respectfully submitted,



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